

IOS  
June 23, 2000

# (12) UK Patent Application (19) GB (11) 2 183 882 (13) A

(43) Application published 10 Jun 1987

(21) Application No 8529987

(22) Date of filing 5 Dec 1985

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(51) INT CL.  
G07F 17/34

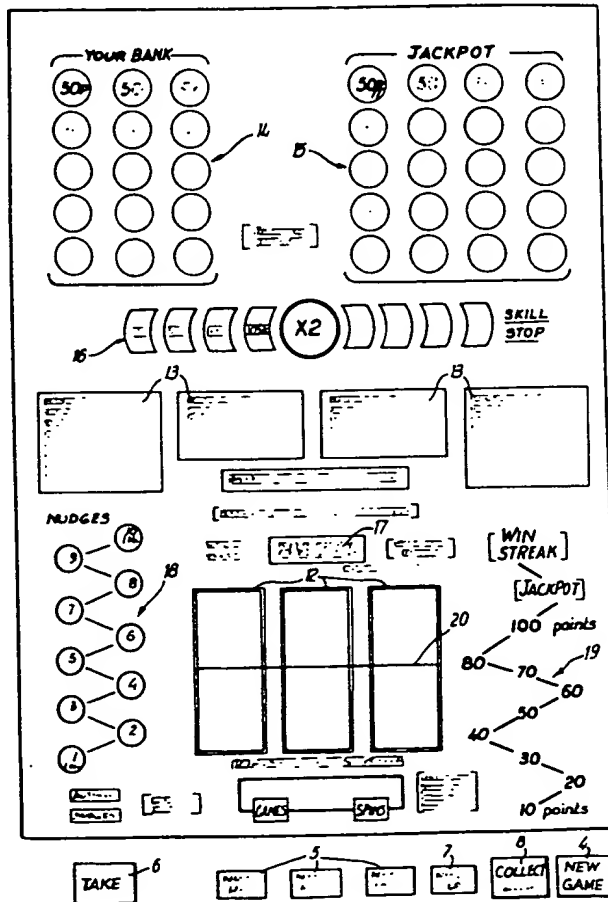
(52) Domestic classification (Edition I):  
G4V 118 AA  
U1S 1174 G4V

(56) Documents cited  
GB A 2137392 GB 1591623 GB 1082557  
GB A 2086632 GB 1359852

(58) Field of search  
G4V  
Selected US specifications from IPC sub-classes A63F  
G07F

## (54) Entertainment machines

(57) A coin-operated entertainment machine selects and displays a combination of symbols for example by rotation of symbol-bearing reels behind a window (12). Multiple opportunities are given for selecting symbol combinations during play of a game, and a score is allocated to each attained combination. The scores are totalised and a win indication is given if the total score at the end of a game has reached a predetermined level. The total score may also be checked against scores obtained in previous games whereby the highest score can be displayed. The machine may be a fruit machine and features such as nudge, hold, gamble and jackpot may be incorporated.



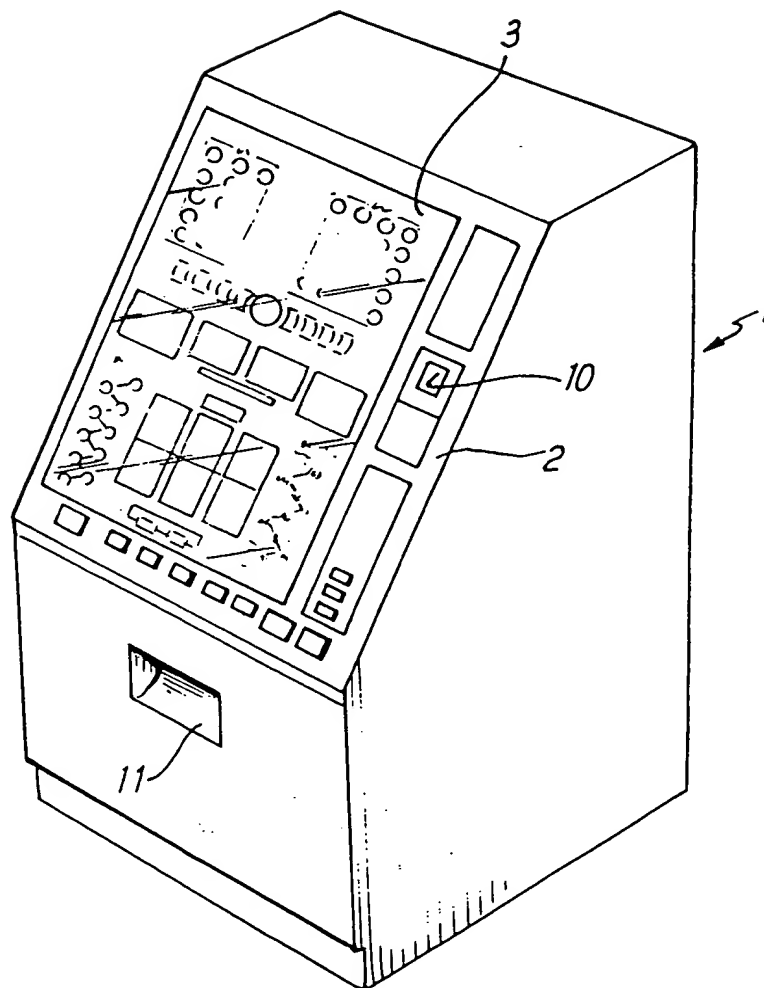
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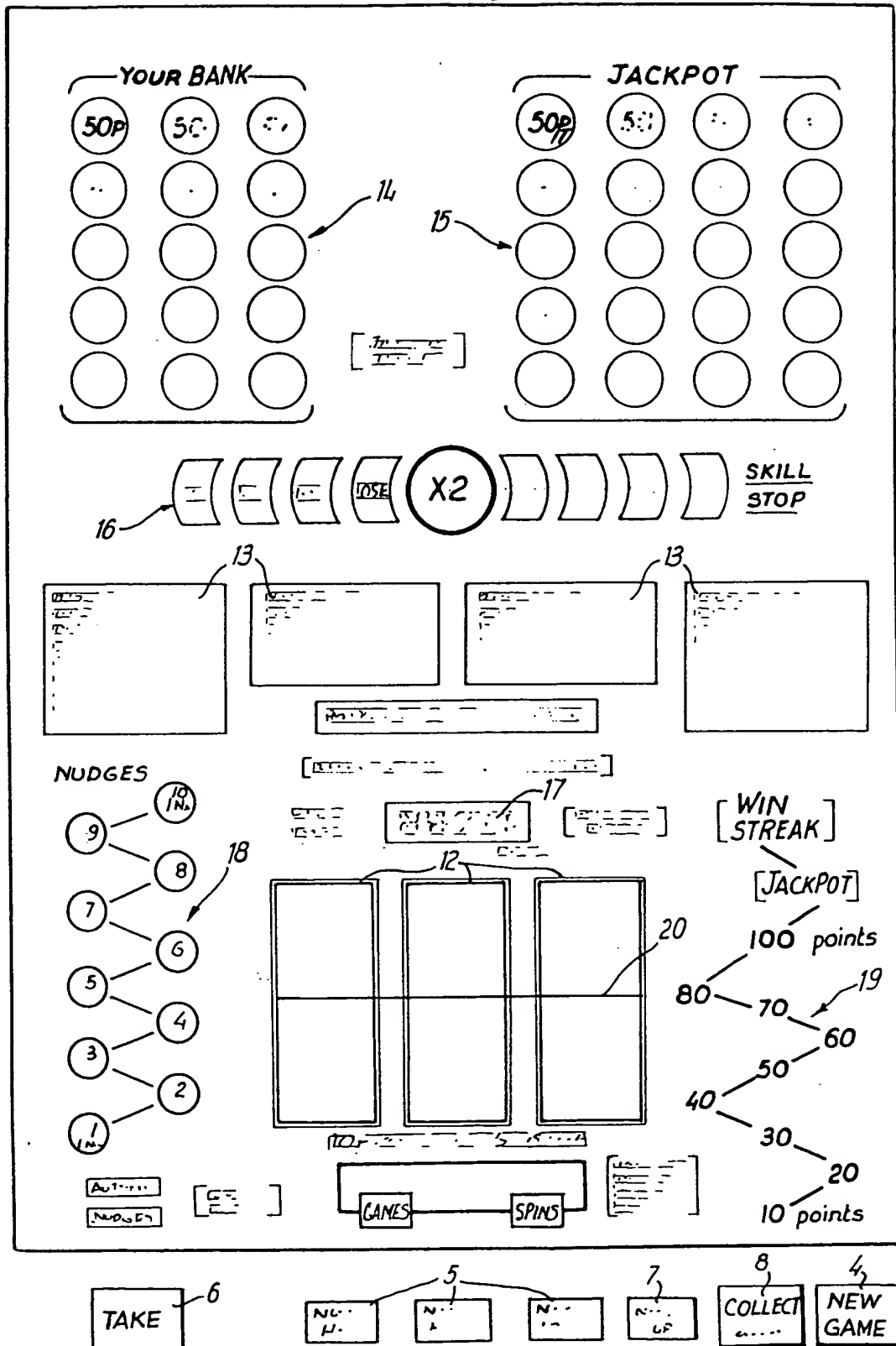
**FIG. 1**

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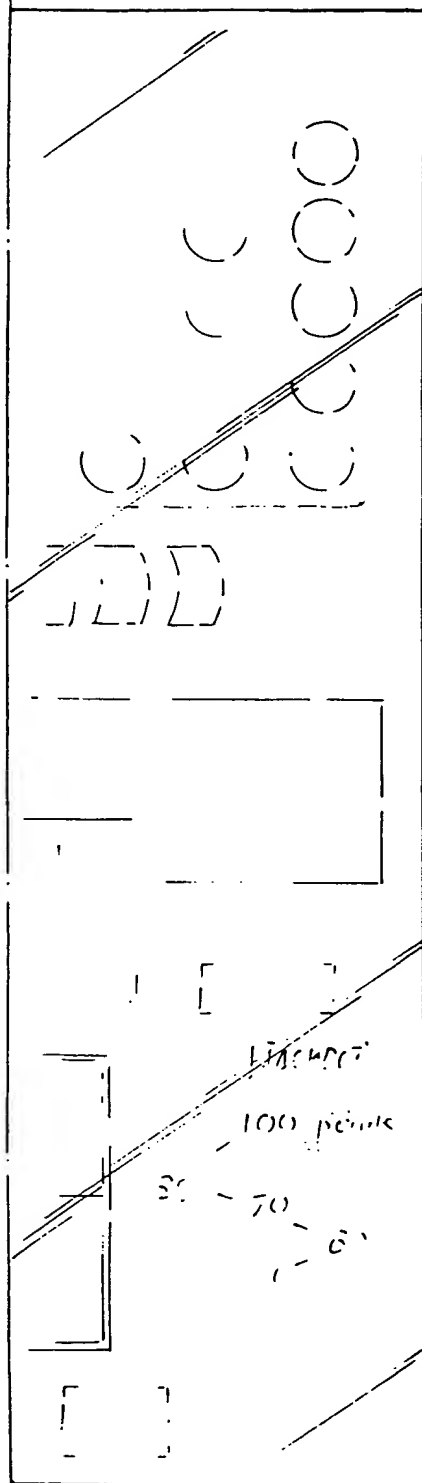


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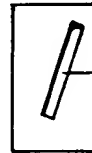
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PRICING



10

INSTRUCTIONS

TAKE  
BANK

STOP

START

FIG. 3

SELECT

9

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by way of example only and with reference to the accompanying drawings in which:

Figure 1 is a diagrammatic view of one form of an entertainment machine according to the invention; and

Figures 2 + 3 are more detailed views of the front of the machine.

The entertainment machine shown in the drawings is a fruit machine and comprises a floor-standing box-shaped housing 1 having a front wall 2 which includes a screen-printed glass sheet 3 and below this a series of operating buttons including a start button 4, hold/-nudge buttons 5 and various other control buttons 6, 7, 8, 9. There is also a coin slot 10 and a payout opening 11.

Within the housing there are three axially aligned reels having say 20 symbols (such as pictures of fruit) at regularly spaced positions around their peripheries. The reels are axially rotatable and are drivably connected to respective stepper motors. The reels are arranged behind a window 12 defined by a printed region of the glass panel 3. Each reel can be arrested by the respective stepper motor in any of 20 stepping positions in which one symbol is in precise registration with a horizontal win line 20 in the centre of the window 12 and two further symbols are visible above and below the win line.

The stepper motors are connected to a microprocessor-based control unit. This unit is also connected to a coin mechanism, a payout mechanism, the buttons 5-9, various lamps behind printed display regions of the panel 3 and lamps in the buttons 5-9.

The panel bears printed matter additional to the window 12 including the following:

information 13 e.g. as to scores which can be achieved;

a bank display 14;

a jackpot display 15;

a gamble display 16;

a window bounding a digital (alphanumeric) display 17;

a nudge ladder 18; and

a jackpot ladder 19.

In use when the player inserts coins into the coin mechanism through the slot 10 sufficient to generate credit for one or more games the machine is actuated such that a game can now be played. Each game consists of five opportunities to spin the reels so as to select a combination of symbols displayed on the win line 20. In conventional manner, in each such spin procedure the reels rotate and come to rest after different respective periods of time. The game commences after the appropriate new game button 4 has been pressed and the five spin procedures may be implemented automatically in sequence, or if desired it may be necessary to press the button 4 to initiate each spin procedure.

At the start of each game a number of

on the nudge ladder 18. There may be an opportunity for the player to try to increase the number of nudged by pressing a button to arrest progression up and down the ladder as indicated by successive illumination of the ladder sections. The player can use the nudges during the game at the end of any spin procedure to try to improve the selected symbol combination by indexing one or more reels through one or more steps using the nudge buttons 5. It will be seen that the player has to exercise his skill and judgement to decide in which spin procedure or procedures to use the nudges. There may be an autonudge facility as described in Patents 2092797 and 2144568. At random at the start of some spin procedures a hold facility may be made available whereby one or more reels can be held against rotation during the ensuing spin procedure by operation of the hold buttons 5.

At the end of each spin procedure the displayed symbol combination is assessed by the control unit (from a knowledge of the starting positions of the reels and a knowledge of the number of stepping impulses fed to the stepper motor). A score is then allocated depending on the nature of the combination in accordance with the information at the display region 13. The scores are totalised from spin procedure to spin procedure and the current total during a game is shown on the digital display 17. At the end of the game the final total is assessed to see if it has reached a predetermined level (e.g. 1000 points). If it does, a payout is made available to the player.

The final total score is also checked against the previous highest score attained during an operating period (e.g. during a day or week etc.) and if the previous highest score has been exceeded the new score is stored in the machine and the player is given an opportunity of entering his initials on the digital display 17 using one or more of the buttons 5-9. The highest score and the identifying initials are displayed on the digital display 17 when games are not being played.

The gamble display 16 is actuated on a predetermined or random basis at the end of some or all spin procedures. Lose sections and double sections are illuminated alternately. By pressing an appropriate button the player can endeavour to arrest the gamble display when a double section is illuminated whereupon the attained score in that spin procedure or at the end of the game is doubled.

Whenever the requisite final score (i.e. 1000 points) is attained which is sufficient for the payout to be made available, the amount of the payout (e.g. £1.50) is indicated by illumination of appropriate sections of the bank display. There may be the opportunity of doubling (or losing) this using the gamble display 16.

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der display 19. At random, or in accordance with the display of special auxiliary symbols on the win line 20, sections of the ladder 19 can be successively illuminated and there is an opportunity to obtain an award e.g. at the end of the game, as indicated on the sections of the ladder. These awards are mostly bonus points to be added to the totalised score but there is also the possibility of a jackpot award. The jackpot award corresponds to the value of the number of sections of the jackpot display 15 which are illuminated at the end of the game. During play of the game the jackpot is "filled up" on a predetermined or random basis. There may also be a random jackpot double feature.

At the start of a game, when the start button 4 is pressed, the jackpot display, the score and the nudges may all reset. Alternatively they may retain their values from the previous game. The likelihood of the latter may be 50% and it will be appreciated that this gives an opportunity of attaining higher scores.

Although the jackpot display 15 is shown as having circular sections like the bank display 14, the jackpot display may "fill up" with scores (e. g. 50 points for each circular section) rather than filling up with monetary values, the total jackpot value being added to the main score when the jackpot is won.

With the arrangement described above, the player is assured of a prolonged period of entertainment since each game always involves five spin procedures and five opportunities to use features such as nudges etc. There is a decreased likelihood of achieving a payout since there are no small payouts only the large value payout which is made available each time a score of 1000 points is reached. However, the player can derive much entertainment and motivation from observation of his increasing totalised score.

It is of course to be understood that the invention is not intended to be restricted to the details of the above embodiment which are described by way of example only.

#### CLAIMS

1. A coin- (or token-) operated entertainment machine which is operable to play games involving a procedure in which a combination of symbols is selected and displayed, characterised in that in each game there is a plurality of opportunities to effect said selection and display procedure, each said procedure results in the production of a score determined by the selected combination, and a win indication is given at the end of the game in the event that said scores considered cumulatively are of a predetermined nature.

2. A machine according to claim 1, wherein each game involves a predetermined plurality

wherein the individual scores are accumulated to give a total numerical value and the win indication is given in the event that a predetermined value is reached or exceeded.

4. A machine according to claim 3, wherein there are different categories of win indication corresponding to the attainment of different totalised score values.

5. A machine according to any one of claims 1 to 4, wherein the or each win indication is accompanied by the availability of a payout of coins and/or tokens.

6. A machine according to any one of claims 1 to 5, including a hold feature whereby one or more symbols can be held against change during a selection procedure.

7. A machine according to any one of claims 1 to 6, including a nudge feature whereby one or more symbols can be changed at the end of a selection procedure by stepwise indexing through a predetermined sequence of symbols.

8. A machine according to any one of claims 1 to 7, including a gamble feature whereby an opportunity is given of increasing the value of a score or award.

9. A machine according to any one of claims 1 to 8, wherein there is the possibility at the end of a game of carrying forward one or more features and/or the totalised score and/or an available payout to the next game.

10. A machine according to any one of claims 1 to 9, including a jackpot feature having a display which can fill up with scores or monetary awards during play of a game, whereby the player can be credited with the score value or monetary value by winning the jackpot.

11. A machine according to any one of claims 1 to 10, which is a fruit machine.

12. A machine according to claim 1, substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.

Printed for Her Majesty's Stationery Office  
by Burgess & Son (Abingdon) Ltd, Dd 8991685, 1987.  
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London, WC2A 1AY, from which copies may be obtained.

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